

Claims:

1. Method of triggered ultrasound imaging of the heart of a human or non-human animal subject administered with an ultrasound contrast agent wherein one high-energy ultrasound pulse is initiated such that this pulse falls within the refractory period of the heart.
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2. Method of triggered ultrasound imaging as claimed in claim 1 wherein the high-energy ultrasound pulse is repeated to form a sequence of pulses initiated such that the first pulse of said sequence falls within the refractory period of the heart.
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3. Method as claimed in claims 1 or 2 wherein the first high-energy ultrasound pulse falls within the Q-R-S interval of the electrocardiogram of the heart.
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4. Method as claimed in any of claims 1 to 3 wherein the first high-energy ultrasound pulse coincides with the R-wave of the ECG of the heart.
5. Method as claimed in any of claims 1 to 4 wherein in addition low energy imaging pulses are initiated after the high-energy ultrasound pulse or sequence of pulses.
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6. Method as claimed in claim 5 wherein the low energy imaging pulses are initiated at or around a T-wave of the ECG of the heart.
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7. Method as claimed in any of claims 1 to 6 wherein the ultrasound technique used is selected from destruction-wash-in imaging, triggered replenishment imaging and real-time perfusion imaging.
8. Method as claimed in any of claims 1-7 used in assessments of myocardial perfusion.
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9. Use of an ultrasound contrast agent in a method as claimed in any of the preceding claims.

10. Use of an ultrasound contrast agent in the manufacture of an image-enhancing composition for administration to the vascular system of a human or non-human animal subject in order to measure or assess the perfusion of the myocardium in a method wherein one high-energy ultrasound pulse is initiated such that this pulse falls within the refractory period of the heart.

11. Method of ultrasound-induced destruction or modification of an ultrasound contrast agent preadministered to a human or non-human animal body, subjecting a target region of the heart of the body with one high-energy ultrasound pulse initiated such that this pulse falls within the refractory period of the heart, enabling destruction or modification of the contrast agent with a minimized risk of eliciting arrhythmia.